

A Revision of the Subgenus *Poecilandrena* of the Genus *Andrena* of the Eastern Asia (Hymenoptera, Andrenidae)^{1), 2)}

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Abstract The subgenus *Poecilandrena* of the genus *Andrena* of the eastern Asia is revised, and four species are recognized. Three new species, *Andrena (Poecilandrena) viciae*, *A. (Poecilandrena) subsquamiformis* and *A. (Poecilandrena) osytshnjukae* are described from China. *A. (Poecilandrena) leleji* Osytshnjuk is newly recognized as a synonymy of *A. (Poecilandrena) fukuokensis* Hirashima. *A. (Poecilandrena) fukuokensis* Hirashima is recorded for the first time from China. A key to the species of *Poecilandrena* in the eastern Asia is given.

Key words Hymenoptera, Andrenidae, *Andrena*, *Poecilandrena*, revision, eastern Asia

INTRODUCTION

The Palearctic subgenus *Poecilandrena* Hedicke is represented by 21 species (Hirashima, 1965; Warncke, 1968, 1975; Osytshnjuk, 1981, 1982). In the eastern Asia, two species, *Andrena fukuokensis* Hirashima from Japan and Korea and *A. leleji* Osytshnjuk from the Russian Far East, were placed in this subgenus. In this paper, we give a revision of the East Asian species of this subgenus including four species. The holotypes will be preserved in the Institute of Zoology, Academia Sinica, Beijing, China.

Subgenus *Poecilandrena* Hedicke

Poecilandrena Hedicke, 1933, Mitt. Zool. Mus. Berlin, 19: 218 (subgenus); Hirashima, 1965, J. Fac. Agr., Kyushu Univ., 13: 493-494; Warncke, 1968, Mem. Est. Mus. Zool. Coimbra, (307): 36-37; Osytshnjuk, 1975, Fauna Ukraini, 12(5): 66. Type species: *Andrena labiata* Fabricius, 1781, by original designation.

¹⁾ Contribution from the Entomological Laboratory, Faculty of Agriculture, Kyushu University, Fukuoka (Ser. 5, No. 34).

²⁾ Results from the China-Japan Co-operative Study on Studies on Systematics, Evolution and Biogeography of Asian *Andrena* (Hym., Apoidea, Andrenidae) No. 9.

Diagnosis. Small to medium-sized species; facial quadrangle longer than broad or quadrate; facial fovea narrow; subgenal coronet present; malar space linear; pronotum without humeral angle and ridge; propodeal corbicula not well developed; tibial scopal hairs normal and posterior tibial spur slightly broadened and bent near base; metasomal terga usually reddened partly and finely punctate; terga with hair bands or not. Male clypeus yellow; first flagellar segment long; sternum 6 flat to emarginate and reflected.

Key to species of the subgenus *Poecilandrena* in the eastern Asia

[Female]

1. Body length 7.0–9.0 mm; pronotum without median longitudinal line 2
- Body length 10–12 mm, pronotum with median longitudinal line 3
2. Clypeus protuberant, smooth and shiny with large punctures; process of labrum large; propodeal enclosure less rugulose *viciae* sp. nov.
- Clypeus normal, finely tessellate with weak and small punctures; process of labrum small; propodeal enclosure coarsely wrinkled *fukuokensis* Hirashima
3. Clypeus protuberant, flattened medially, sparsely punctate and broadly shiny; metasomal tergum 1 densely punctate *subsquamiformis* sp. nov.
- Clypeus convex, tessellate and densely punctate, less shiny; metasomal tergum 1 less punctate *osytshnjukae* sp. nov.

[Male]

1. Lower paraocular area with large maculae; sternum 6 reflected and emarginate with producing apicolateral teeth *subsquamiformis* sp. nov.
- Lower paraocular area with small maculae or not; sternum 6 flat without apicolateral teeth 2
2. Body length less than 7.0 mm; mesoscutum minutely punctate; propodeal enclosure coarsely wrinkled *fukuokensis* Hirashima
- Body length about 11.0 mm; mesoscutum largely punctate; propodeal enclosure less rugulose *osytshnjukae* sp. nov.

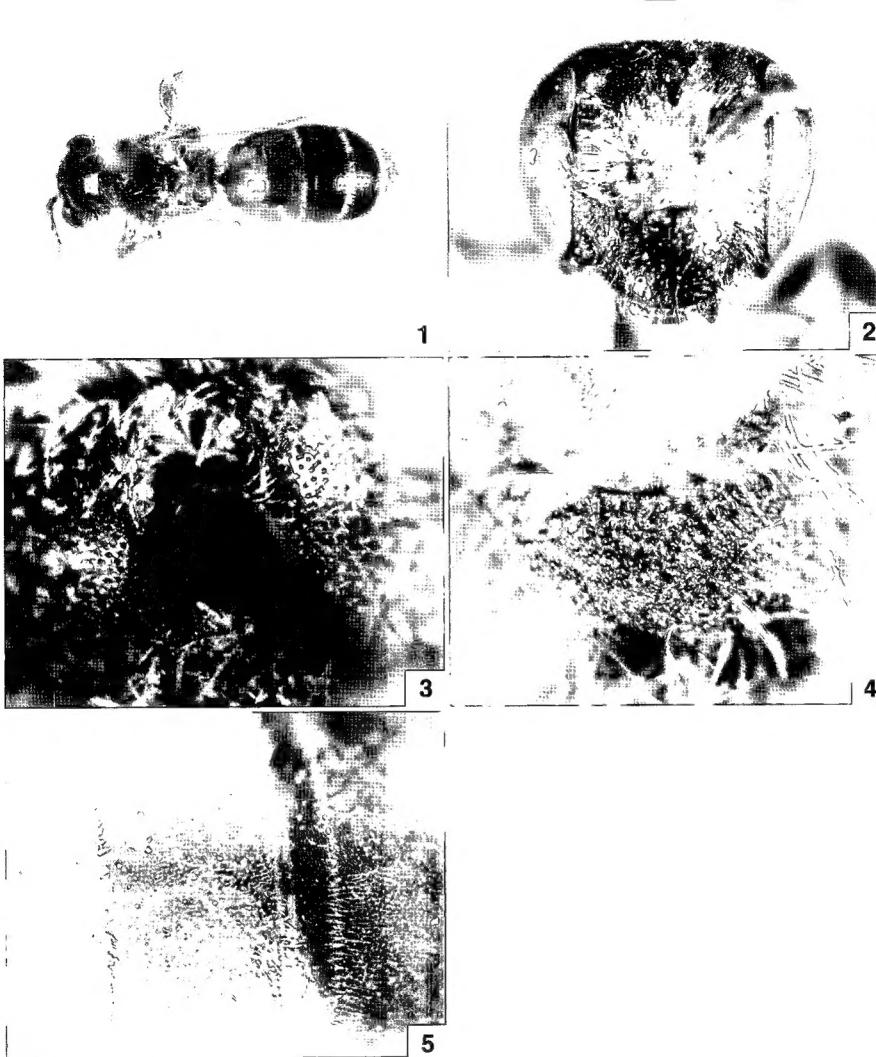
Andrena (Poecilandrena) viciae sp. nov.

(Figs 1–5)

Diagnosis. Female. BL 8.5–9.0 mm, WL 6.6–7.2 mm (n = 3).

Description. Color: Flagellum reddish brown beneath; mandible with apical third or more reddened; wing membranes subhyaline, moderately brown, veins and pterostigma reddish brown; hind tibia and basitarsi reddish yellow, tibial spurs reddish yellow; metasomal terga 1–3 reddened partly, posterior depressions of metasomal terga reddish yellow to brown.

Pubescence: Hairs on head sparse to dense, yellow to brown; those on clypeus 200–300 μ , sparse, brown; those on antennal area dense, yellow; those on vertex 200–350 μ , brown; those on genal area dense, yellow; facial fovea brown. Hairs on thorax dense, fulvous; those on mesoscutum 100–300 μ , sparser medially; those on scutellum 300 μ ; those on mesepisternum 400–500 μ , paler; propodeal



Figs 1-5. *Andrena (Poecilandrena) viciae*, sp. nov., female: 1, dorsal view of the whole body; 2, head in frontal view; 3, mesoscutum; 4, propodeum; 5, metasomal terga.

corbicula loose, dorsal fringes not well arranged, interior area with simple hairs; trochanteral floccus sparse, nearly perfect, yellowish; femoral floccus dense; tibial scopal hairs normal, simple, bright brown above, yellowish below. Hairs on metasomal terga rather short; terga 1–3 free, tergum 4 brown; terga 2–4 with short, dense white hair bands, interrupted on tergum 2; caudal fimbria brown; sterna 2–3 with sparse and long yellowish subapical fimbriae laterally; sterna 4–5 with dense brown subapical fimbriae.

Structure: Head: $HL/HW = 0.92$. $HW : MsW : MtW = 2.5 : 2.5 : 2.7$. Vertex finely tessellate. $OOD : POD : OCD = 0.45 : 0.35 : 0.15$. $FL1 = FL2 + 3$, $FL2 = FL3$ which are broader than long. Eyes with inner margins paralleled. Facial fovea narrow, exceeding below a line at lower margins of antennal fossae, close to eye, $FVL = 1.1$ mm, $FVW = 0.2$ mm. Face above antennal fossae with longitudinal rugulae, interrugulae

area with coarse PP, dull roughened. Facial quadrangle longer than broad (about 2.0: 1.7). Clypeus weakly protuberant, surface smooth and shiny broadly with shallow $PP\varnothing 20 \mu$, IS < 0.5, sparser medially with obscure median impunctate line. CPL = 0.9 mm. Process of labrum large, trapezoidal with entire apex, surface with weak transverse rugulae. Maxillary and labial palpus normal. Lower paraocular area finely tessellate with crowded $PP\varnothing 10 \mu$, IS < 0.1. Genal area narrower than eye, GW : EW = 0.6 : 0.75, surface densely tessellate broadly, feebly shiny with minute PP near eye. *Mesosoma*: Pronotum densely tessellate with obscure PP. Mesoscutum densely tessellate peripherally, weakly tessellate medially with close $PP\varnothing 10 \mu$, IS < 1. Scutellum sculptured as in mesoscutum, but PP closer. Propodeal enclosure weakly rugulose basally, densely tessellate medioapically; dorsal face densely tessellate, weakly shagreened. Mesepisternum densely tessellate with obscure PP. Posterior spur of hind tibia normal. Vein 1st *m-cu* meeting second submarginal cell near end of cell. *Metasoma*: Metasomal terga weakly tessellate, broadly shiny; tergum 1 with $PP\varnothing 10 \mu$, IS = 1-2; terga 2-4 with $PP\varnothing 10 \mu$, IS < 1; posterior depressions of terga not well indicated; pygidial plate V-shaped with rounded apex, with weak internal raised area. Sterns 2-5 weakly tessellate, shiny with close PP at apical halves, impunctate at basal halves. The male is unknown.

Type. Holotype: Female, Beijing, China, 26. IV. 1976 (S-f. Wang); paratypes: 2 females, Beijing, 5. IV. 1948.

Remarks. This species is separated from the other members of *Poecilandrena* by the long facial quadrangle, the protuberant clypeus, the narrow genal area and the normal posterior tibial spurs.

Distribution. China (Beijing).

Floral association. Leguminosae: *Vicia sativa* L.

Andrena (Poecilandrena) fukuokensis Hirashima

Andrena (Micrandrena) fukuokensis Hirashima, 1952, Mushi, 23: 39 [female & male, Japan].

Andrena (Poecilandrena) fukuokensis: Hirashima, 1965, J. Fac. Agr., Kyushu Univ., 13: 494-497 [female & male, redescription, Japan and Korea]; Hirashima, 1966, J. Fac. Agr., Kyushu Univ., 14: 99, 112-113 [female & male, in key]; Kim & Kim, 1983, Kor. J. Ent., 13: 6 [Korea]; Tadauchi, 1988, Bull. Nagasaki biol. Soc., (33): 7; Tadauchi, 1989, Check List Jap. Insects, 685 [in list]; Ryu et al., 1994, Check List Insects Kor., 266 [in list]; Tadauchi et al., 1997, Esakia, (37): 196-197.

Andrena (Poecilandrena) leleji Osytshnjuk, 1981, Hymenoptera Far East, 113-116 [female & male, Russian Far East]; Osytshnjuk, 1995, Key Insects Russian Far East, Vol. IV. Part 1, 494, 517 [female & male, in key]. **syn. nov.**

Material examined. Holotype male and allotype female (Kyushu Univ.), Fukuoka, Kyushu, Japan, 9. IV. 1950 (Y. Hirashima). Other material: China: Shanghai: 1♀, 20. IV. 1920; 1♀, 7. IV. 1933 (A. Savio). Jiangsu Province: 1 ♀, Zhenjiang, 30. III. 1919 (O. Piel). Zhejiang Province: 10 ♂ (O. Tadauchi); 5 ♂ (H-l. Xu), Tianmushan, 18-20. IV. 1996. Heilongjiang Province: 15 ♀, Jingpo Lake, Mudanjiang, 23-26. V. 1993 (O. Tadauchi); a paratype female and one male of *A. (Poecilandrena) leleji* Osytshnjuk: Pzimozije: Zazavskiji Zapov, Kievka, Romankova, 30. V. 1979 (♀), 5. V. 1979 (♂).

Remarks. This species is similar to *Andrena labiata* Fabricius. But the female differs from that of *labiata* in having the more wrinkled propodeal enclosure, the more tessellated clypeus and the black metasomal terga. The male differs from that of *labiata* in having the smaller maculae on paraocular area and the flat 6th sternum. We examined one pair of *A. leleji* Osytshnjuk and recognized it as *A. fukuokensis* Hirashima.

Distribution. Korea (southern and central Korea); China (new record, Shanghai, Jiangsu, Zhejiang, Heilongjiang Provs.); Japan (Honshu, Shikoku, Kyushu, Tsushima Is.); Russia (Far East area).

Floral associations. China: Cruciferae: *Brassica campestris* L.; Compositae: *Taraxacum* sp.

***Andrena (Poecilandrena) subsquamiformis* sp. nov.**

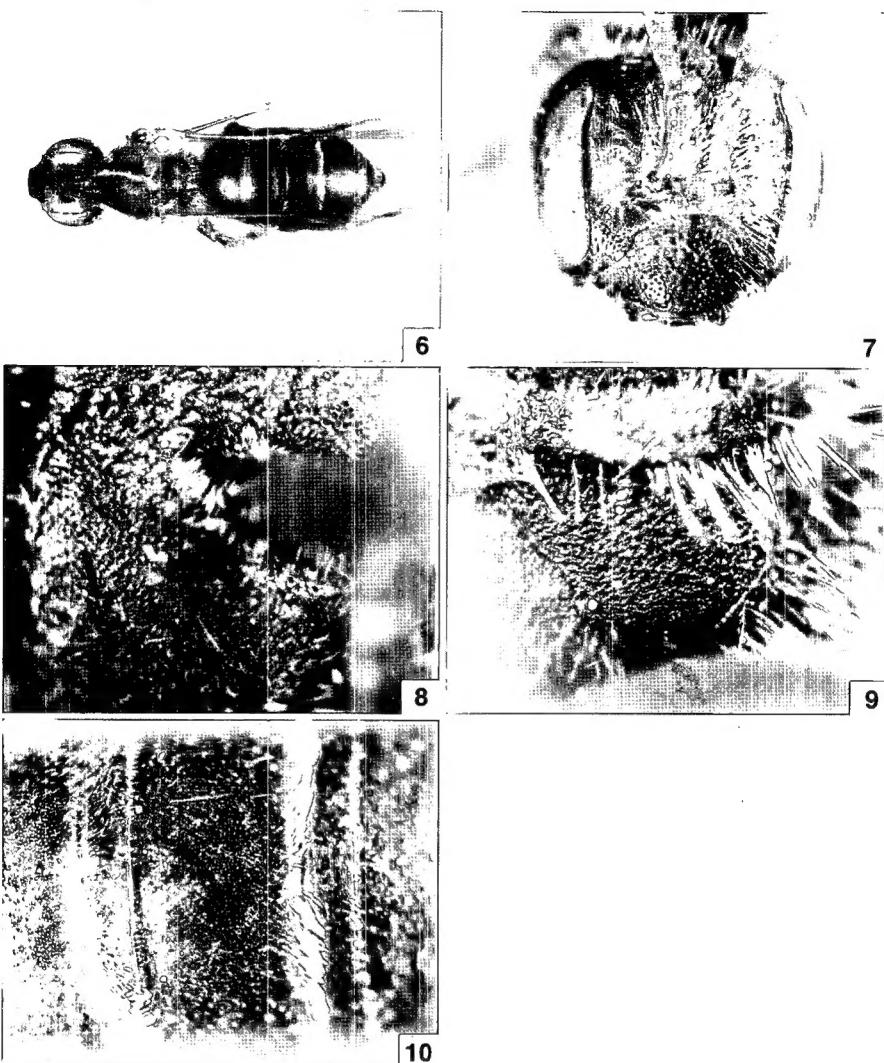
(Figs 6–20)

Diagnosis. Female. BL 10–11.7 mm, WL 8.4–8.8 mm (n = 17).

Description. Color: Flagellum reddish beneath; mandible with apical half or more reddened; wing membranes subhyaline, moderately brown, veins and pterostigma reddish brown; tibial spurs reddish yellow; metasomal terga 1–2 reddened partly or entirely black; posterior depressions of metasomal terga reddish yellow.

Pubescence: Hairs on head sparse except antennal area dense, fulvous; those on clypeus free; those on vertex 300–400 μ ; those on genal area 300–400 μ ; facial fovea brown above, whitish below. Hairs on mesoscutum and scutellum short mostly (140–400 μ), dull yellow; those on mesepisternum 600 μ , paler; propodeal corbicula developed with long arranged dorsal fringes, internal area with sparse simple hairs; trochanteral floccus perfect, yellowish; femoral floccus long and dense, tibial scopal hairs long, dense, yellowish. Hairs on metasomal terga scanty; terga 2–4 with narrow complete whitish hair bands, interrupted on tergum 2; caudal fimbria brown; sterna 2–5 with long sparse yellowish subapical fimbriae.

Structure: Head: HL/HW = 0.9. HW : MsW : MtW = 3.0 : 3.2 : 3.5. Vertex densely tessellate to weakly shagreened. OOD : POD : OCD = 0.6 : 0.4 : 0.3. FL1 < FL2 + 3, FL2 = FL3 which broader than long. Eyes with inner margins paralleled. Facial fovea narrow, extending beyond below a line at lower margins of antennal fossae, FVL = 1.3 mm, FWV = 0.3 mm. Face above antennal fossae with fine longitudinal rugulae, interrugal area with coarse PP, dull shagreening. Facial quadrangle as broad as long (about 2.2: 2.0). Clypeus protuberant, flat medially, weakly tessellate, surface shiny with close PP \varnothing 40 μ , IS < 0.5, with polished median impunctate longitudinal space, CPL = 1.1 mm. Process of labrum large, trapezoidal, weakly emarginate apically. Lower paraocular area weakly tessellate, shiny with crowded PP \varnothing 20 μ , IS < 0.1. Genal area broader than eye, GW : EW = 0.8 : 0.7, surface densely tessellate broadly, shagreened. Mesosoma: Pronotum finely tessellate with close minute PP, IS = 1, with weak median longitudinal line. Mesoscutum and scutellum densely tessellate, surface dulled by tight PP. Propodeal enclosure large, rugose at basal half, densely tessellate at apical half; dorsal face roughened by reticular tessellation. Mesepisternum densely tessellate with coarse PP. Vein 1st m-cu meeting second submarginal cell at middle of cell. Metasoma: Metasomal terga weakly tessellate, surface shiny with tight PP \varnothing 10 μ , IS < 0.1; posterior depressions of terga not well indicated; pygidial plate V-shaped with internal raised area. Sterna 2–5 impunctate at basal halves, smooth and shiny, finely tessellate with close PP at apical halves.

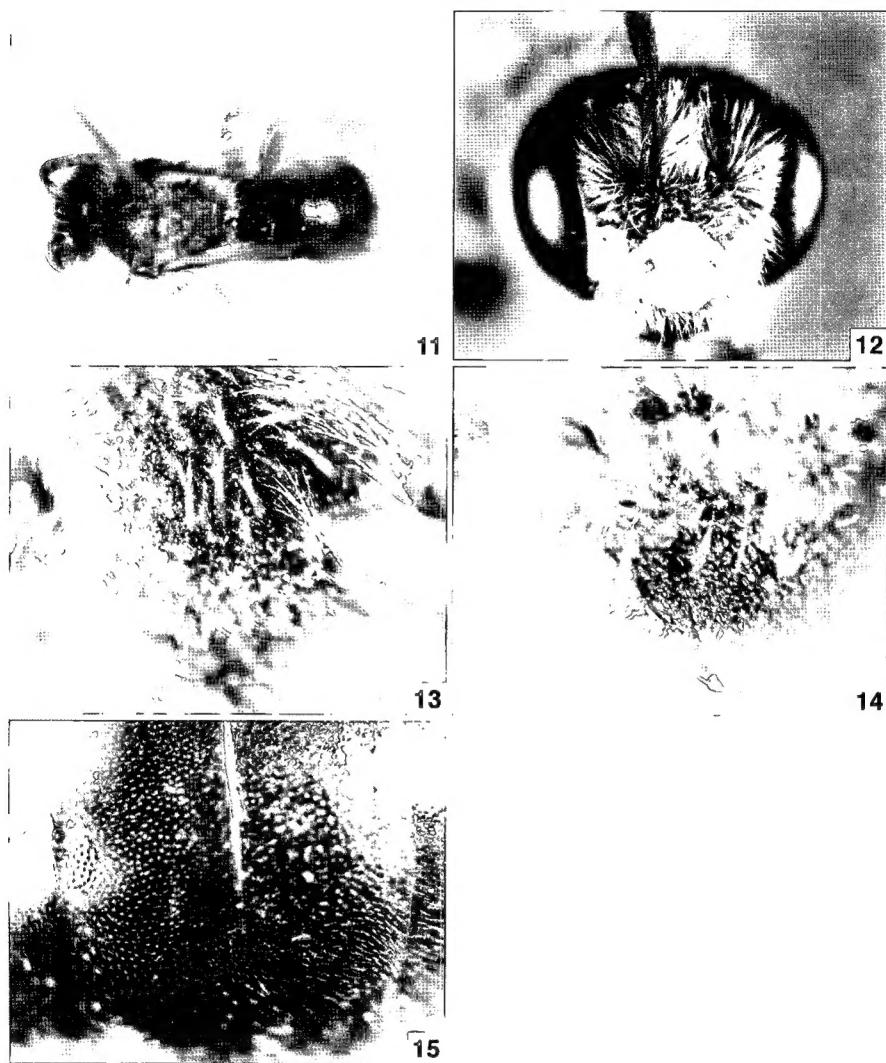


Figs 6-10. *Andrena (Poecilandrena) subsquamiformis*, sp. nov., female: 6, dorsal view of the whole body; 7, head in frontal view; 8, mesoscutum; 9, propodeum; 10, metasomal terga.

Male. BL 7.5–8.5 mm, WL 6.5–7.5 mm (n = 10).

Color: Flagellum yellow beneath except basal portion; mandible reddened apically; clypeus yellowish white except apical margin and two small spots laterally; lower paraocular area with large triangular maculae; wing membranes dusky, veins and pterostigma brown; tibial spurs testaceous; posterior margins of metasomal terga reddish brown subhyaline.

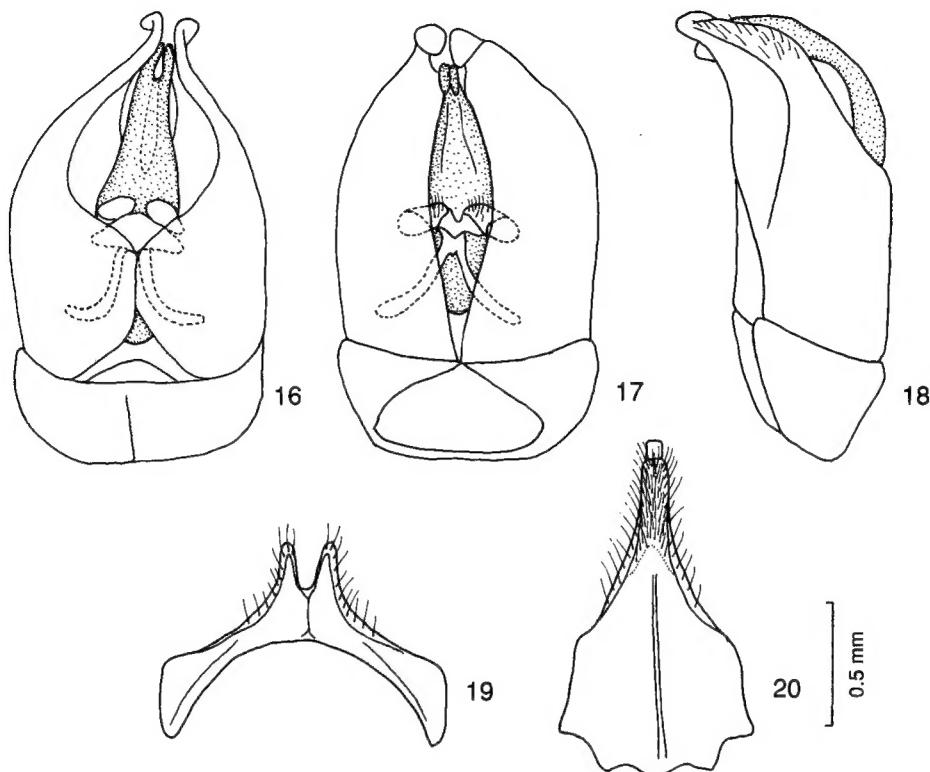
Pubescence: Hairs on head moderately dense, white to dull white; those on clypeus 400 μ , white; those on vertex 450 μ , dull white; those on genal area white. Hairs on dorsum of thorax dull yellow, whitish below; those on mesoscutum and scutellum 400–500 μ ; those on mesepisternum 700 μ , white. Hairs on metasomal terga rather short; terga 2–4 without hair bands; sterna 2–5 with long, not well-formed white



Figs 11-15. *Andrena (Poecilandrena) subsquamiformis*, sp. nov., male: 11, dorsal view of the whole body; 12, head in frontal view; 13, mesoscutum; 14, propodeum; 15, metasomal terga.

subapical fimbriae.

Structure: Head: $HL/HW = 0.83$. $HW : MsW : MtW = 2.6 : 2.5 : 2.5$. Vertex short, densely tessellate. $OOD : POD : OCD = 0.5 : 0.35 : 0.15$. Antennae short as in female; $FL1 = FL2 + 3$, $FL2$ subequal to $FL3$ which is broader than long, intermediate flagellar segments broader than long. Eyes with inner margins converging toward mandibles. Supraclypeal area and face above antennal fossae sculptured as in female. Facial quadrangle slightly longer than broad (about 1.8: 1.7). Clypeus rounded from side to side, smooth and shiny, surface with weak and shallow PP, $IS < 0.5$, sparser medially; $CPL = 0.8$ mm. Process of labrum trapezoidal, entire apically, surface smooth and shiny. Lower paraocular area as in female. Genal area narrower than eye, $GW : EW = 0.6 : 0.8$, surface shagreened by coarse tessellation. Mesosoma:



Figs 16-20. *Andrena (Poecilandrena) subsquamiformis*, sp. nov., male. Genital capsule and subgenital sterna: 16, dorsal view of genital capsule; 17, lateral view of the same; 18, ventral view of the same; 19, metasomal sternum 8; 20, metasomal sternum 7.

Pronotum finely tessellate with close minute PP. Mesoscutum tessellate marginally, shiny with small PP, IS = 1-2 medially. Scutellum as in mesoscutum. Propodeal enclosure defined by lateral sutures, weakly wrinkled mostly; dorsal face of propodeum roughened. Mesepisternum densely tessellate with obscure PP. Vein 1st *m-cu* meeting second submarginal cell at middle of cell. Metasoma: Metasomal terga smooth and shiny, surface with fine small PP, IS = 0.5-1; posterior depressions of terga narrow, well indicated. Sterna 2-5 finely tessellate, impunctate basally; sternum 6 emarginate medially with distinctly producing apicolateral teeth.

Type. Holotype: Female, Beijing, China, 4. V. 1964 (S.-m. Ge); Paratypes: Beijing: 1♀, same data as the holotype; 3♀, 16-26. V. 1961 (S.-m. Ge); 1♀, 14. V. 1963 (S.-m. Ge); 3♀ (S.-f. Wang), 1♀ (Y.-s. Shi), 24. V. 1973; 2♀, 14-27. IV. 1973 (Y.-r. Wu); 2♀, 6. V. 1977 (Y.-r. Wu). Jiangsu Province: 1♀, Nanjing Botanical Garden, 7. V. 1982; 1♀, Chemo, 24. IV. 1935 (O. Piel). Shandong Province: 1♀, Weihai, 29. IV. 1991 (H.-l. Xu). Heilongjiang Province: Mudanjiang: 12♀ and 10♂, Jingpo Lake, 23-27. V. 1993 (O. Tadauchi).

Remarks. This species is similar to the following species *Andrena osytshnjukae* sp. nov., but the female is separated from *osytshnjukae* by the protuberant shiny clypeus flattened medially, the obscure median longitudinal line of pronotum and the more punctated and less shiny mesoscutum. The male is

separated by the lower paraocular area with maculae and metasomal terga without hair bands. This species is also similar to *A. labiata* Fabricius, especially in male, but it has a median longitudinal line on the pronotum and the larger body length.

Distribution. China (Beijing, Heilongjiang, Shandong, Jiangsu Provs.).

Floral associations. Rosaceae: *Prunus serotina*, *Prunus* sp.; Cruciferae: *Brassica campestris* L.

***Andrena (Poecilandrena) osytshnjukae* sp. nov.**

(Figs 21–30)

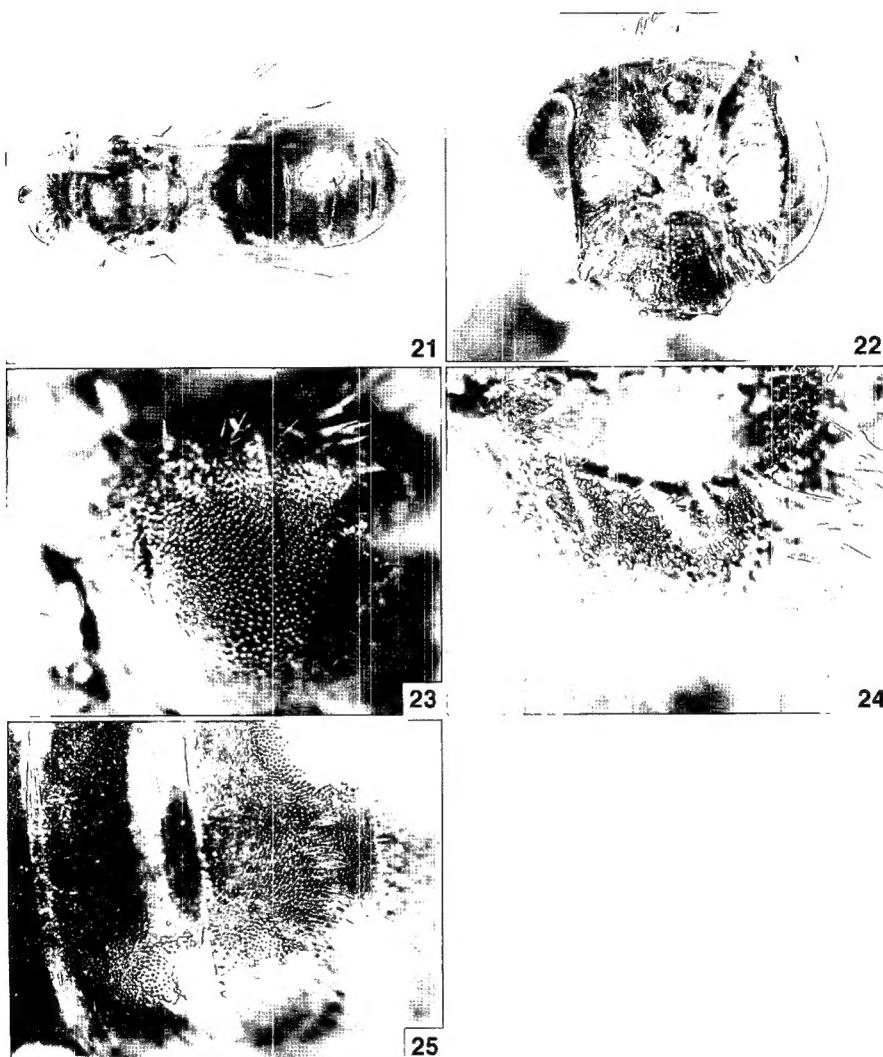
Andrena (Lepidandrena) limbata [nec Eversmann]: Wu, 1985, Living Things Tianshan Tumorfeng Region Xinjiang, Apoidea, 138 [female, in list].

Diagnosis. Female. BL 12.0 mm, WL 9.7 mm ($n = 1$).

Description. Color: First flagellar segment brown (the other segments lacking); mandible reddened apically; wing membranes hyaline, veins and pterostigma reddish brown; basitarsi and hind tibia red, tibial spurs testaceous; posterior depressions of metasomal terga partly ferruginous.

Pubescence: Hairs on head yellowish white; those on clypeus short (200 μ) laterally, free medially; those on vertex 500–600 μ , dense; those on genal area dense; facial fovea white in the light. Hairs on mesoscutum and scutellum scanty mostly, sparse hairs on anterior margin of mesoscutum; rather short hairs on posterior margin of scutellum; those on metanotum long, sparse, pale yellow marginally; those on mesepisternum sparse, yellow; propodeal corbicula ill-formed, internal area with short simple hairs; trochanteral floccus perfect, yellow; femoral floccus dense; tibial scopal hairs long, simple, yellow. Hairs on metasomal terga rather short, sparse, yellowish brown; terga 2–4 with white hair bands broadly interrupted; caudal fimbria yellowish white; sterna 2–5 with sparse, yellow, incomplete subapical fimbriae.

Structure: Head: HL/HW = 0.83. HW : MsW : MtW = 3.3 : 3.3 : 3.7. Vertex finely tessellate, weakly shagreened above lateral ocelli. OOD : POD : OCD = 0.7 : 0.5 : 0.2. Eyes with inner margins subparallelled. Facial fovea moderate, extending to below a line at lower margin of antennal fossae, FVL = 1.2 mm, FWV = 0.4 mm. Supraclypeal area dulled with longitudinal rugulae. Face above antennal fossae with weak longitudinal rugulae and coarse interrugal PP, shagreening surface. Facial quadrangle quadrate (about 0.9 : 0.9). Clypeus well convex, finely tessellate, feebly shiny, surface with PP \varnothing 15–20 μ , IS = 0.5–1, with narrow median longitudinal impunctate line, CPL = 1.1 mm. Process of labrum broad, trapezoidal, weakly emarginate apically. Labrum apical to process sulcate, without crista. Lower paraocular area densely punctate, shagreening surface. Genal area broader than eye, GW : EW = 0.9 : 0.8, surface coarsely tessellate, obscured PP. Mesosoma: Pronotum tessellate, shiny with crowded minute PP, with median longitudinal suture. Mesoscutum weakly tessellate, weakly shiny, finely punctate with PP \varnothing 15–20 μ , IS < 0.5. Scutellum with crowded minute PP, less shiny. Propodeal enclosure large, densely tessellate with sparse rugulae at base; dorsal face of propodeum dulled by coarse tessellation. Mesepisternum finely tessellate with weak minute PP, IS = 1 medially. Vein 1st *m-cu* meeting second submarginal cell at middle of cell. Metasoma: Metasomal tergum 1 smooth and shiny with PP \varnothing 10–15 μ , IS = 0.5–1.5; terga



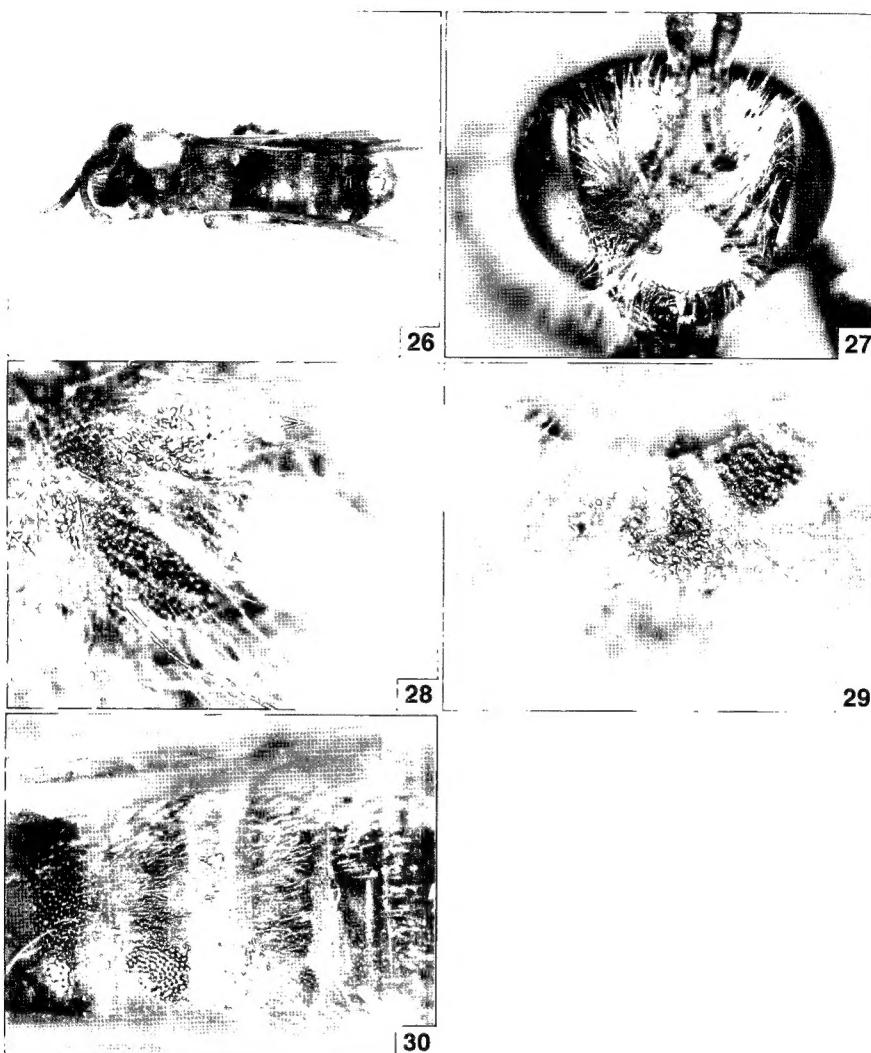
Figs 21-25. *Andrena (Poecilandrena) osytshnjukae*, sp. nov., female: 21, dorsal view of the whole body; 22, head in frontal view; 23, mesoscutum; 24, propodeum; 25, metasomal terga.

2-4 weakly tessellate with PP \varnothing 10-15 μ , IS<0.5, weakly shiny; posterior depressions of terga narrow, well indicated; pygidial plate V-shaped, with internal indistinct triangular area. Sternae 2-5 finely tessellate with minute PP, IS=0.5.

Male. BL 11.0 mm, WL 9.0 mm ($n=1$).

Color: Flagellum reddish yellow beneath; clypeus yellow except apical margin, lateral angles, posterior area and small spots below tentorial pits; mandible reddened apically; wing membranes subhyaline, moderate brown, veins and pterostigma yellowish brown; legs as in female; metasomal terga ferruginous partly.

Pubescence: Hairs on head moderately dense, yellowish to whitish; those on clypeus 400-500 μ ,



Figs 26-30. *Andrena (Poecilandrena) osytshnjukae*, sp. nov., male: 26, dorsal view of the whole body; 27, head in frontal view; 28, mesoscutum; 29, propodeum; 30, metasomal terga.

yellowish; those on antennal area long and dense; those on vertex 800 μ , whitish; those on genal area pale yellow. Hairs on thorax dense; those on thoracic dorsum 600–700 μ , dull yellow; those on mesepisternum paler; legs with yellowish white hairs. Hairs on metasomal terga short, whitish; terga 2–5 with white hair bands broadly interrupted; sterna 2–5 with short yellowish subapical fimbriae.

Structure: Head: HL/HW = 0.8. HW : MsW : MtW = 3.0 : 2.7 : 3.0. Vertex, supraclypeal area and face above antennal fossae sculptured as in female. OOD : POD : OCD = 0.6 : 0.5 : 0.2. FL1 > FL2, FL2 < FL3, FL2 broader than long, FL1 slightly shorter than FL2 + 3, following segments longer than broad. Eyes with inner margins slightly converging toward mandibles. Facial quadrangle quadrate (about 1.9 : 1.9). Clypeus well convex, weakly tessellate, shiny with shallow PP \varnothing 20 μ , IS = 0.5–1, smaller and denser

PP at lateral angle, CPL = 0.9 mm. Process of labrum broad, short, apex with broad, shallow emargination, surface smooth and shiny. Labrum apical to process as in female. Mandibles decussate. Lower paraocular area weakly tessellate, coarsely punctate. Genal area broader than eye, GW : EW = 0.9 : 0.8, surface coarsely tessellate with close minute PP near eye. *Mesosoma*: Pronotum reticularly tessellate, with surface weakly dull, with weak median longitudinal suture. Mesoscutum finely tessellate, closely punctate with PP Ø 15 μ , IS < 1, feebly shiny medially. Scutellum similar to mesoscutum, but PP denser and smaller. Propodeal enclosure sculptured as in female; dorsal face of propodeum roughened. Mesepisternum densely tessellate with close PP, surface shagreening. Venation as in female. *Metasoma*: Metasomal terga with PP as in female, but surface shinier; posterior depressions of terga more or less well indicated. Sternae 2–5 weakly tessellate with sparse PP. Genitalia lacking in the type specimen.

Type. Holotype: Male, Tianshan, 1,480 m, Xinjiang Uygur Autn. Region, China, 17. VII. 1957 (G. Wang); Paratype: Xinjiang Uygur Autn. Region: 1 ♀, Alashan, 2,400 m, 8. VIII. 1978 (X-z. Zhang).

Remarks. This species is similar to the preceding species in having the median longitudinal line in pronotum, but the female is separated from that of *subsquamiformis* by the clypeus convex, tessellate and densely punctate, and the metasomal tergum 1 with sparser PP. The male is separated from that of *subsquamiformis* by the clypeus partly yellow and the lower paraocular area without maculae.

Distribution. China (Xinjiang Uygur Autn. Region).

Floral association. Not available.

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